

ASUS RT-AC52U

Introduction

Late in 2013 we reviewed two ASUS wireless routers: [RT-AC68U](#) and [RT-AC56U](#) that can be called flagship devices. However, usually models that cost less get to be the most popular ones among customers. Today our laboratory hosts ASUS RT-AC52U wireless router that is claimed to be the most purchased device. It's worth mentioning that though we were given a real production sample, it'd probably take some time until the beginning of the massive sale of the device in Russia.



External design and hardware

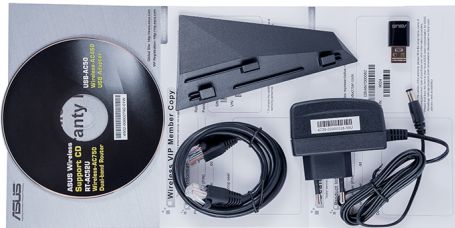
ASUS RT-AC52U wireless router is made of black plastic and meant for the desktop or wall mounting. There is a special stand fixed to the bottom side of the device that holds it in a vertical position. To work properly the device under review needs an external power unit (included in the box) with the following characteristics: 12V and 1A.



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Written by Administrator

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There is a ventilation grate on the upper and bottom panels.

On the rear side of the device there are a sticker with brief information about the device and two cross-shaped tooling holes used to mount the device on the wall. Also, there is a sunken Reset button located over here.



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The front panel is made of glossy wavy plastic. Apart from a brand tag, it also has six LEDs indicating the power and WAN connection as well as status of the wired and wireless segments of the device.



One of the side panels has a Wi-Fi on/off button.

On the other side of the wireless router there are five Fast Ethernet ports (one of them is WAN and other four are LAN), USB 2.0 interface, power socket, POWER on/off button, and WPS button used for facilitating the connection of new wireless clients.

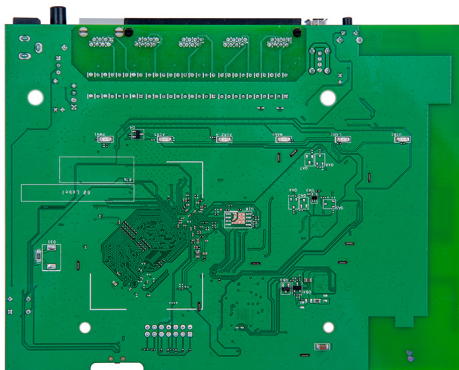
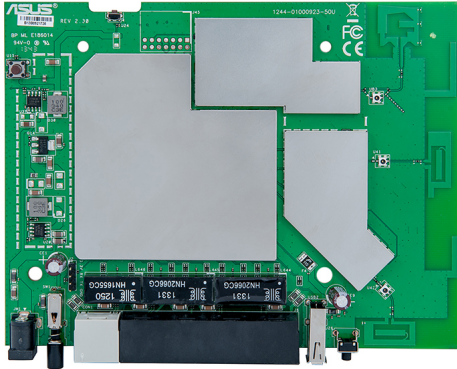


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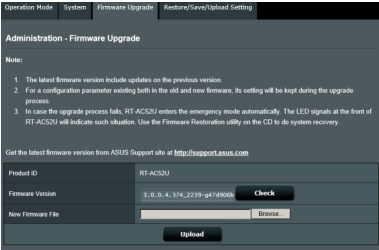
Now let's have a look at the insides of the case. That was where we were faced with a slight disappointment: all elements on the card are covered by three large metal screens. We used the command line and managed to find out that ASUS RT-AC52U wireless router is powered by SoC MediaTek (priorly Ralink) MIPS 24Kc V5.0 CPU and has 128 Mbytes of RAM.



Now let's pass on to reviewing of the software capabilities of the model.

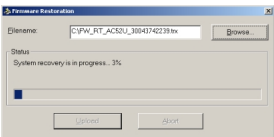
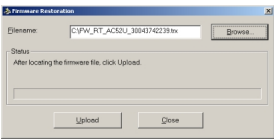
Firmware upgrade

Firmware upgrade is carried out in Firmware Upgrade tab, Administration menu item. Firmware upgrade may be carried out both in a manual and semi-automatic mode. Firmware upgrade in the semi-automatic mode is available only if the NAS is connected to the WAN. The whole firmware upgrade procedure takes about 3 minutes (not considering the firmware download time from the Internet) and does not require any kind of special technical knowledge from the user.



In case of a failure during the firmware upgrade process, the router changes for the recovery mode during which the power indicator on the device starts flashing slowly. The administrator can manually switch RT-AC52U over to the recovery mode. To do that s/he only needs to hold Reset button for 10 seconds while the device is booting.

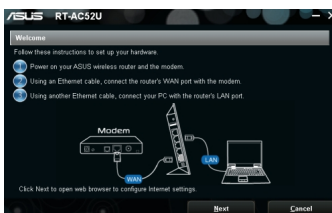
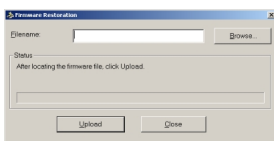
Firmware restoration is carried out using the same-named program which is included in the conventional utility pack for ASUS wireless routers. The whole recovery process is carried out in the semi-automatic mode; one just needs to choose a file with the new firmware version and click on Upload button.



That is where we bring the section devoted to the upgrade and recovery of ASUS RT-AC52U wireless router firmwares to a conclusion.

Utilities

As of when the article was being written, the following utilities were available for ASUS RT-AC52U wireless router: Device Discovery, Firmware Restoration and Router Setup Wizard, which all perform standard functions for ASUS equipment.



Apart from conventional utilities that let the administrator detect the ASUS device within the local network segment, restore the firmware, or facilitate initial setting-up procedures, a CD that was included in the box also featured Printer Setup Utility application used to perform a PC setup of the printer connected to the router USB port.

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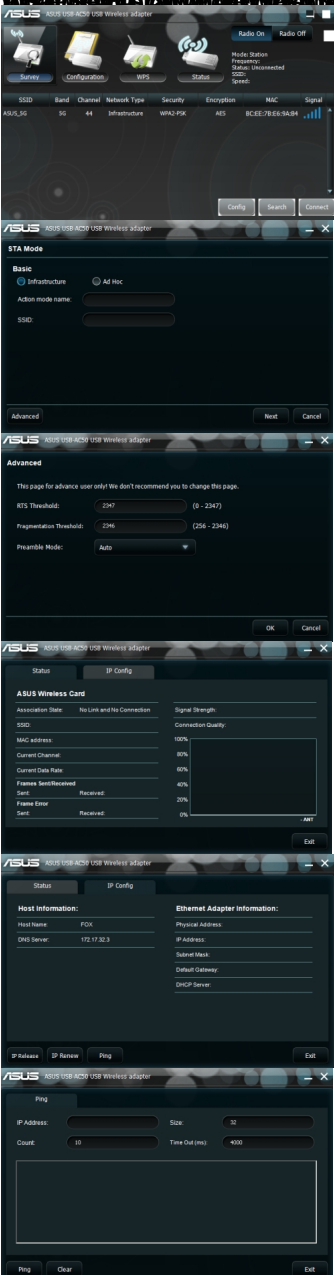
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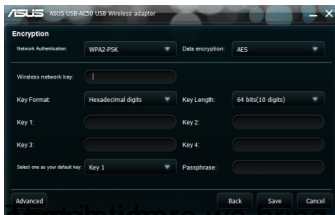


ed (USB A Com) that make it possible with Asus RT-AC52U wireless router.



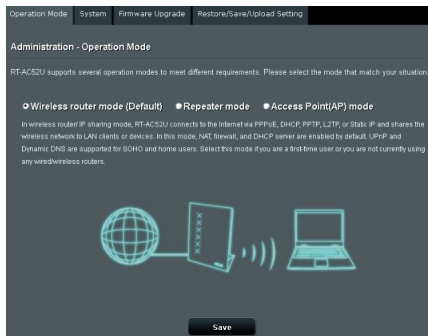
When you install the ASUS USB Wireless Adapter, you will be prompted to install the ASUS USB Wireless Adapter Driver. The driver is included in the ASUS USB Wireless Adapter Driver CD-ROM. You can also download the driver from the ASUS website.





On this page we bring a brief review of ASUS RT-AC52U and USB-AC50 utilities to a **Web-interface and command line**

ASUS RT-AC52U wireless router web-interface is the same as the one of RT-AC56U and RT-AC68U. And there's only one thing different: inability to specify the level of hardware acceleration on Local Network-Switch Control page. Apart from it, RT-AC52U cannot perform Media Bridge functions.



One can access the command line using Administration-System page.

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Operation Mode

System

Firmware Upgrade

Restore/Save/Upload Setting

Administration - System

Change the router login password, time zone, and NTP server settings.

Change the router login password

Rouder Login Name

admin

New Password

Very Weak

Show password

ReType New Password

Miscellaneous

Remote Log Server

Time Zone

(GMT+04:00) Moscow, St. Petersburg

NTP Server

pool.ntp.org

NTP Link

Remember

Do not synchronize your system time with NTP server yet.

Enable Telnet

Yes No

Authentication Method

HTTP

Enable Web Access from WAN

Yes No

Only allow specific IP

Yes No

Specify IP (Max Total : 4)

Client List

Add / Delete

No data in table.

Administration - Performance tuning

First turn the radio power to reduce/decrease the coverage and change the cooler spin mode Please note: If the output power is increased for long distance signal transmission, the client also need to use high-power card to get the best performance.

Cooler status

System adjustment

2.4GHz Transmit radio power

100 mW

5GHz Transmit radio power

100 mW

Temperature unit

°C

Spin duty cycle

Auto

Apply

USB Application - Miscellaneous setting

More detailed settings for the USB Disk

WebDav to Samba

Disable

Disable

Enable

Apply

top

Hardware: Intel Core i7-8700K, 64GB RAM, NVIDIA GeForce RTX 3090

Testing

Traditionally, we begin our testing section with estimating the booting time of the device, which is a time interval starting with the moment when the power is on until the first echo reply is received through ICMP protocol. ASUS RT-AC52U wireless router boots in 47 seconds. We believe that the result is decent.

The second conventional test was a security scanning procedure of the model under review, which has been carried out using Positive Technologies XSpider 7.7 (Demo build 3100) utility. On the whole, there were twelve open ports discovered. The most interesting data are presented below.

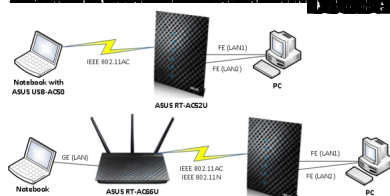
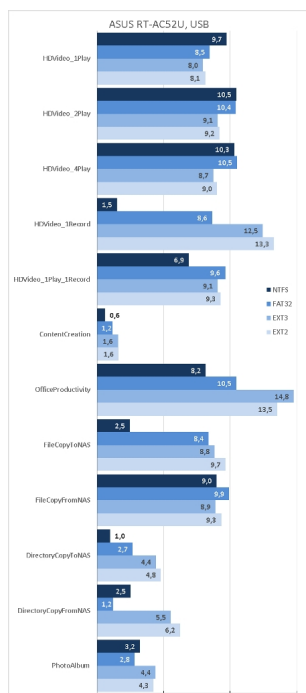
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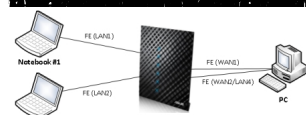
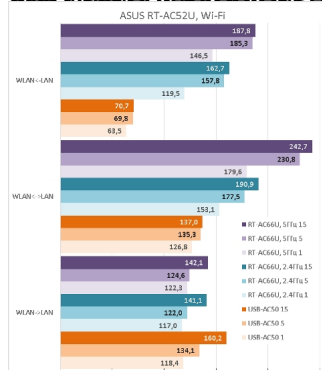
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We tested the router's performance in the PC (wired interface), while for the laptop we decided to



Conclusion

Generally, we are pleased at ASUS RT-AC52U wireless router we tested. It is seen to become the budgetly-priced model (once it has hit the Russia's stores) which would become a replacement for devices that support the older wireless standard. ASUS USB-AC50 USB adapter that's included in the box makes the transition to 802.11ac network standard an easier thing for common users. We believe that RT-AC52U is a balanced model that offers users network access speeds similar both for wired and wireless devices.

The strength areas of ASUS RT-AC52U are presented below.

- Supports up to three guest networks in each wireless range
- May be managed both via HTTP and HTTPS
- Support of OpenVPN server and client
- High access speeds to the data located on a USB-disc
- Support of double WAN-port
- Balanced speeds both for wired and wireless clients
- Support of IPv6

Unfortunately, we cannot help to mention certain drawbacks of the model.

- The web-interface is not completely translated
- Absence of Media Bridge operation mode
- Wired LAN ports are Fast Ethernet

As of when this article was being written, the wireless router was not yet available for purchase in Moscow online shops.